

Claim Listing

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application (material to be inserted is in **bold and underline**, and material to be deleted is in ~~strikeout~~).

Please cancel claims 18-19, 27-33, and 35. Please amend claims 16, 17, 24-26, 36, 38, and 40-48 as set out below. Please add new claims 49-50.

1-15 (Canceled).

16. (Currently Amended) A sander, comprising:

a frame;

a platen;

an abrasive associated with the platen;

a drive mechanism interconnecting the platen and the frame, configured to move the abrasive in ~~an orbital~~ **a first** motion superimposed on a second motion, **where the second motion is a circular translational orbit**; and

a conveyor for conveying objects to be sanded in a feed direction toward the platen.

17. (Currently Amended) The sander of claim 16, where the ~~second~~ **first** motion is ~~a circular~~ **an orbital** motion.

18. (Canceled)

19. (Canceled)

20. (Previously Presented) The sander of claim 16, where the abrasive is an abrasive sheet.

21. (Previously Presented) The sander of claim 16, where the abrasive is secured to the platen.

22. (Previously Presented) The sander of claim 21, where the abrasive is secured to the platen by an adhesive.

23. (Previously Presented) The sander of claim 21, where the abrasive is secured to the platen by one or more mechanical clips.

24. (Currently Amended) The sander of claim 16, where the drive mechanism includes a bearing mechanism ~~configured to permit rotation of the platen~~.

25. (Currently Amended) The sander of claim 16, further comprising one or more additional platens, ~~each platen superimposing an orbital motion on a second motion~~.

26. (Currently Amended) The sander of claim 25, each platen superimposing an orbital motion on a ~~rotational motion~~ circular translational orbit.

27-33. (Canceled)

34. (Previously Presented) A sander, comprising:

a frame;

a first platen;

an abrasive sheet secured to the platen;

a first drive shaft interconnecting the platen and the frame, configured to move the platen in an orbital motion;

a bearing mechanism interconnecting the platen and the first drive shaft, configured to permit the platen to move in a circular motion relative to the first drive shaft; and

a conveyor for conveying objects to be sanded in a feed direction toward the platen.

35. (Canceled)

36. (Currently Amended) The sander of claim 35 34, further comprising at least one additional platen, adjacent to the first platen, each additional platen having a drive shaft configured to move the additional platen in an orbital motion and a bearing mechanism configured to permit the platen to move in a circular motion relative to the drive shaft superimpose an orbital motion and a rotational motion on the platen.

37. (Previously Presented) The sander of claim 36, where the platens are arranged side-by-side above the conveyor.

38. (Currently Amended) A sander, comprising:

a frame;

an abrasive sheet structure;

a drive mechanism interconnecting the frame and the abrasive sheet structure, configured to move the abrasive sheet structure in an orbital motion superimposed on a driven second motion; and

a conveyor for conveying objects to be sanded in a feed direction toward the abrasive sheet structure.

39. (Previously Presented) The sander of claim 38, where the abrasive sheet structure includes a sheet of sandpaper.

40. (Currently Amended) The sander of claim 38, where the driven second motion is a circular motion.

41. (Currently Amended) The A sander of claim 40, comprising:
a frame;
an abrasive sheet structure;
a drive mechanism interconnecting the frame and the abrasive sheet
structure, configured to move the abrasive sheet structure in an orbital motion
superimposed on a second motion; and
a conveyor for conveying objects to be sanded in a feed direction toward the
abrasive sheet structure;

where the second motion is a translational orbit.

42. (Currently Amended) The sander of claim 38, further comprising a platen
structure, configured to urge the abrasive sheet structure against objects to be sanded.

43. (Currently Amended) The sander of claim 42, where the abrasive sheet
structure includes a sheet of sandpaper secured to the platen structure.

44. (Currently Amended) The sander of claim 42, where the motion of the
abrasive sheet structure is determined solely by the movement of the platen structure.

45. (Currently Amended) The sander of claim 42, where the platen structure
and the abrasive sheet structure move together.

46. (Currently Amended) The sander of claim 42, where the platen structure
includes a planar surface for urging the abrasive sheet structure against objects to be
sanded.

47. (Currently Amended) The sander of claim 42, where the platen structure
includes a deformable pad attached to the bottom surface of the platen structure.

48. (Currently Amended) The sander of claim 42, where the platen structure is includes an elongate platen that is disposed perpendicular to the feed direction of the conveyor.

49. (New) The sander of claim 42, wherein the driven second motion is a reciprocal motion.

50. (New) The sander of claim 49, wherein the platen structure imparts the second reciprocal motion to the abrasive sheet structure.